

FIGURE 1

2/10

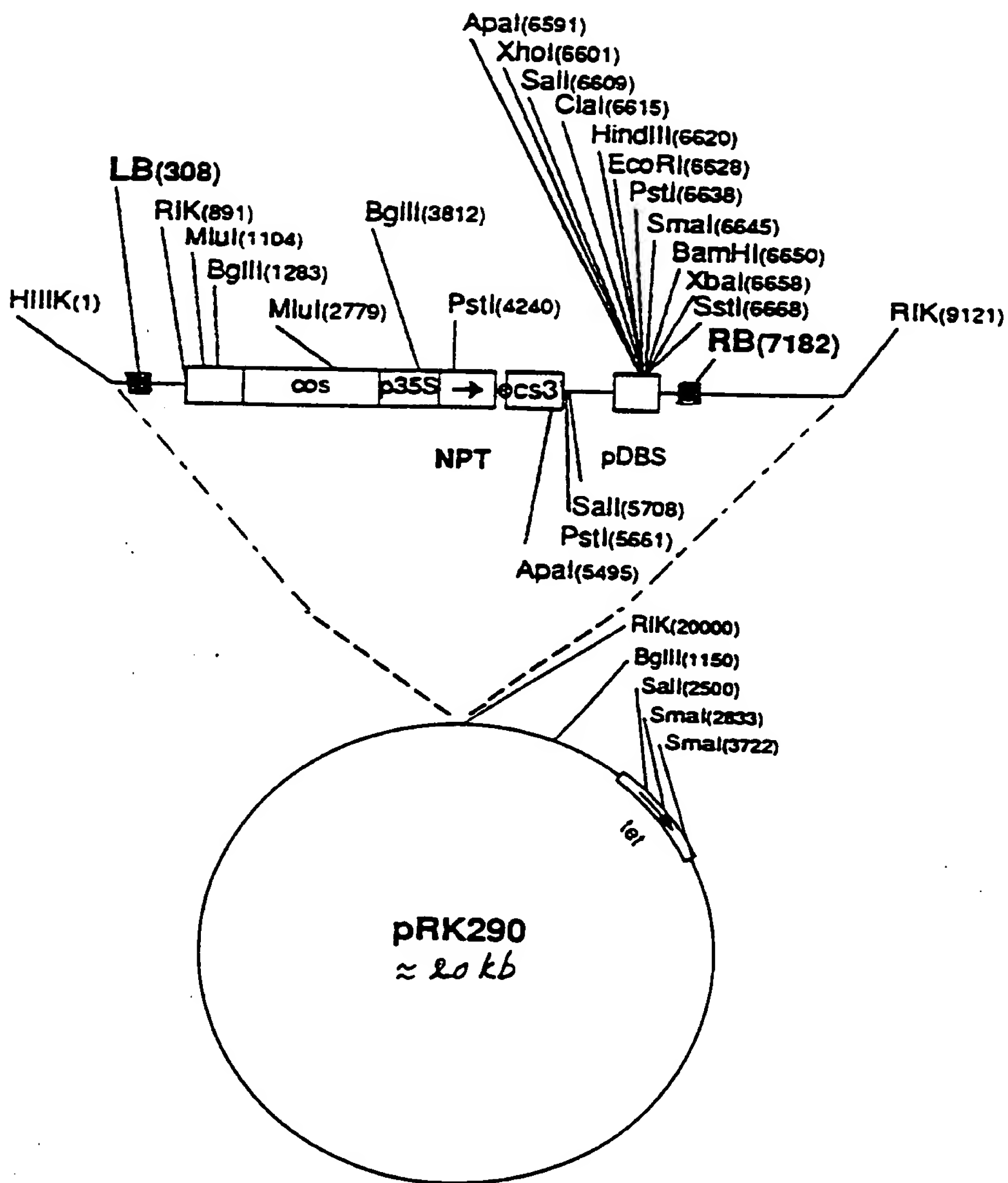


FIGURE 2

3/10

QA31001L N[.]

1 2 3 4 5 6 7 9 10 11 12 13 14 15 16 17 18 19 20 21 23 24

Template

- 1 = B56
- 2 = A31
- 3 = A30
- 4 = B38
- 5 = CC13
- 6 = B31
- 7 = AA12
- 8 = DD2
- 9 = CC14
- 10 = A52
- 11 = B22
- 12 = A65
- 13 = A25
- 14 = A55
- 15 = CC16
- 16 = A44
- 17 = A29
- 18 = E20
- 19 = E4
- 20 = E15
- 21 = AA5
- 22 = E22
- 23 = CC3
- 24 = AA2

FIGURE 3

4/10

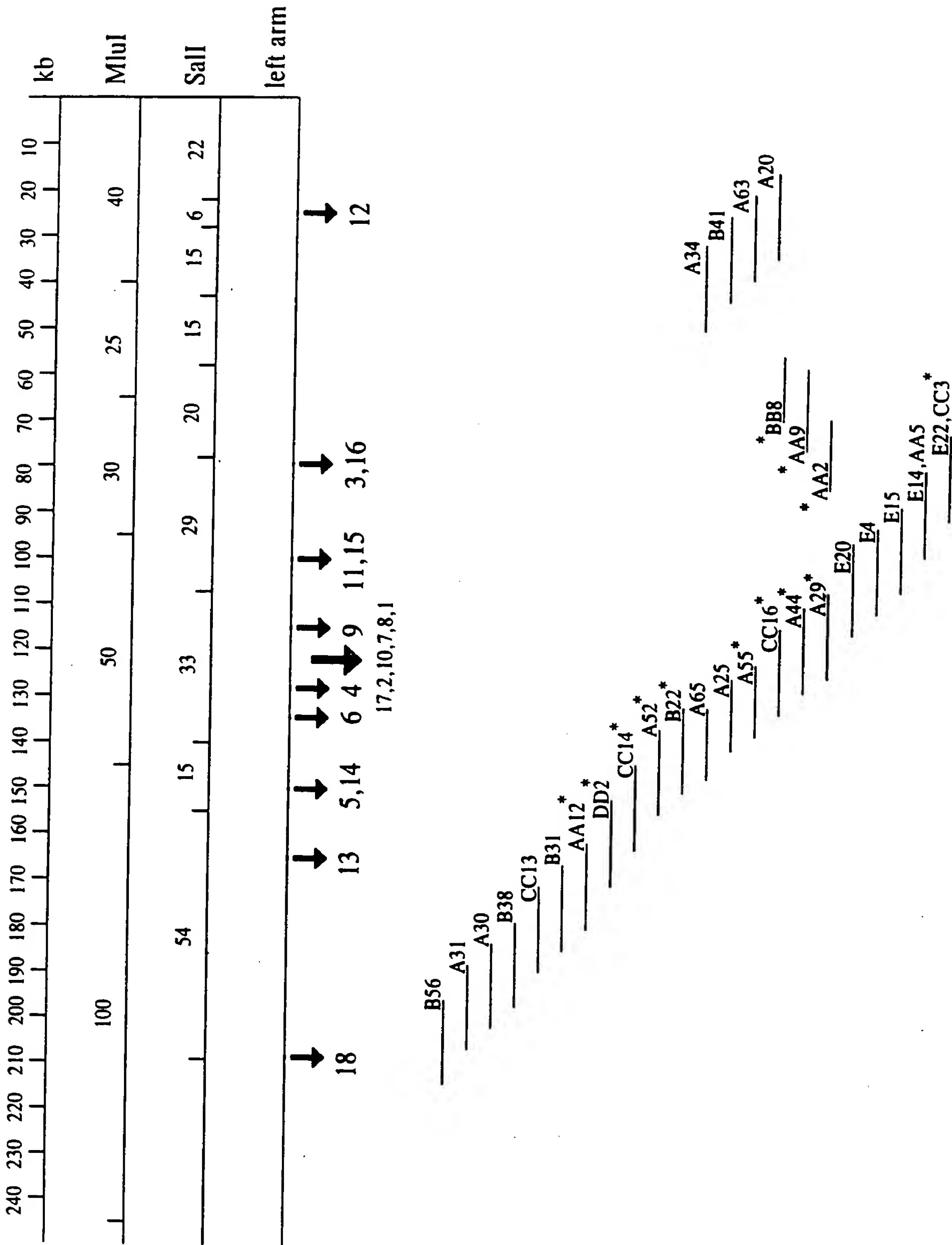


FIGURE 4

5/10

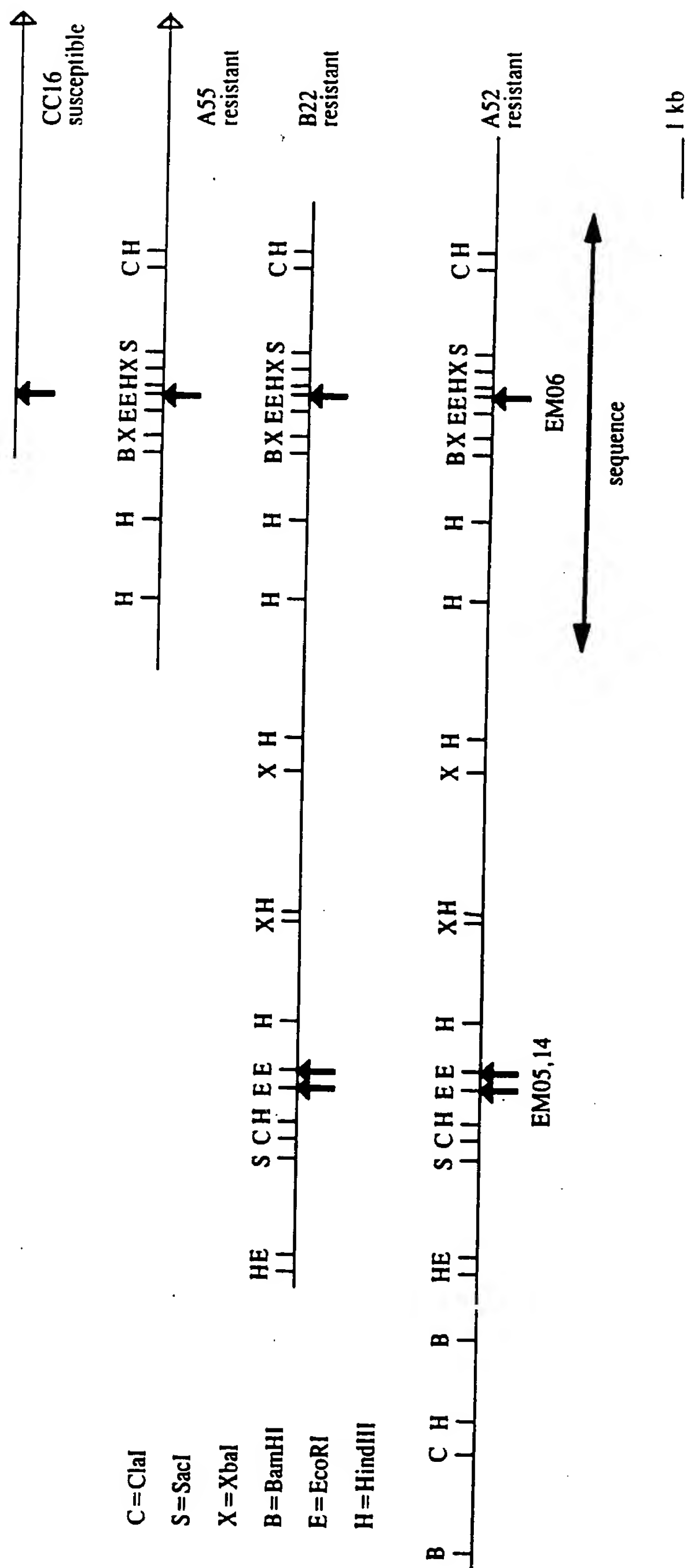


FIGURE 5

5' -AAAAAAGCAGCTTTAAAAAAGTACTTTKGAAAGGKGCTGAAACTTATTTTTTTGAAATAA 60  
GCAGTTATGTGTTTGGAAWAAAAGTGCTGAAGTTGCTATGTCAAACATGAAAAGGGRAAA 120  
AATGGAAGAAAGAGWTGTTAGGGTTATGTCGTAATTTGGAGATTGTATAAAAAATATTAAG 180  
GGCAAAAAAATAAAAAATGTGTCAACTTAAACAGCTTATAAGCTAAAAGTTAAAAGCTG 240  
GGGTAGAGGTGTTTTTTTTTTTTTTTAGCTTATAAGTTGTTTTTAAGTTGACCACATTTT 300  
TTTTTKTTGCCCTTAATATTTTTTATACAATCTCAAATTACGACATAACCCTAACATCTT 360  
TTTCTCCCATTTTTTTCCTTTTCACGTTTGACATAGCAACTTCAGCACTTTTATCCAAACA 420  
CATAACTGCTTATTTTAAAAATAAGTTTCAGCACTTTCAAAAGTACTTTTTTTAAAGCTGC 480  
TTTTATTAAGCCCATCCAAACGGGCCCTAAAATTGCTAATGTTTGCTCTTTCTATTCTCA 540  
AACTCCGTAATATTTAAGAAAATTTGCTAATGATAGGTCACCTTTTAACACTAAATAATTA 600  
TAAATTGGGTAGAAATTTATTTATCATTTTAAAGCTTTTTTTAATTTTGAGTCTTCTCCCTA 660  
ATTAAGACCCTTCCCCTCTTGCTTCAATTATTTAACTGAATAGTCTTTGTCTTATTGTTG 720  
GGTGAAAGTCTGTCTTCTTGTTAGGTACTAAGTCCTACAATAATATCAATAATTTGCTAT 780  
GGAGAAAAAATATTATAGGAGAAAAATAATTAATTTTAATTCATGAATATGTCTTAATA 840  
TGCAACTCATTTTGCTTATATATATCAAATTAACCTCTGTTCCCTTTAACTTTTTTCCTATG 900  
AAGATACATTTTAAATTTATTTGATGAGGTTAGTTTTGAAATTTATATTATAATAATGAAA 960  
TGATATAACTTAAAAGAAGTTGTTTGATATCTTATCAGAATCATGCAGGTACTCATAATA 1020  
TAAGAAATAATTATGATGAAATTTATATATGTTTTATGCAGAGATTTATTACGCATTGTT 1080  
TACTTGGGTTATGTATTACTTATTTTCATCTTTTATCAGAATGTAAAATTATCATTCAATA 1140  
AGAAATCCAATTCTGTAAATTCAAATACAAACAATAACATTTTCAAGACCGATTTTTT 1200  
GCCCAAGAATATACAGTAAACATATTTATGATATGGTAGGTCTCTTTAGTAATTGACCAA 1260  
CAAGGATTGTGGTGGAGTGGGAAATACTCTTTAATACTTCACCAAGAGGTCTCCAATTTG 1320  
AGCCCCTGAATACGAAATCGTCTTTGTTAGTATATACCCTAACCTAATACAAAATTAGT 1380  
ATATTAGCCTTNACAGCTAAAATCTTTGTGACCTGTAAGTCACGCGAGGACAAATTTACC 1440  
GTAACACCAACTTATTCATGATATAATTGTCCCTTTTAGCACGGTAATAATGAGGTGGGT 1500  
AGAAATTTATTACTTGAGGGCCCTTTCTACACCCACCCTTATTCTCTTGCTTCAATTATT 1560  
GAATTGAAGAAGTAATGAAAAACAGACTCCATTGGATAAAGGACAGTTTGCAAACACAG 1620  
CTGTAACAATTTAGAGCACTAGCAAAATAGAGAGAGTTTTGAGAGAAATTTTTGTTTGCA 1680  
AATTACTCTTAACCTTCAGCAGGTAAAATAAAGTTCTTAACTGAGACTATTTGAAGATAT 1740  
ATTTTGTTAAAGAATCATTTTGTGTGTTTCCTTGTTTTGCTTTTGCAGATTGAGAAATG 1800  
M 1  
GAGATTGGCTTAGCAGTTGGTGGTGCATTTCTCTCCTCAGCTTTGAATGTTCTGTTTGAT 1860  
E I G L A V G G A F L S S A L N V L F D 21  
AGGCTTGCTCCTAACGGTGATCTGCTCAACATGTTTCGGAAGCATAAGGATCATGTAAAG 1920  
R L A P N G D L L N M F R K H K D H V K 41  
CTCTTAAAGAAGCTGAAAATGACTTTGCGTGGTATTCAGATTGTGCTAAGTGATGCAGAG 1980  
L L K K L K M T L R G I Q I V L S D A E 61  
AATAAGCAAGCATCAAATCCATCTGTGAGAGACTGGCTTAATGAGCTTCGAGATGCTGTC 2040  
N K Q A S N P S V R D W L N E L R D A V 81  
GACTCTGCTGAAAATTTAATAGAAGAAGTCAATTATGAAGCTTTGAGGCTTAAGGTGGAA 2100  
D S A E N L I E E V N Y E A L R L K V E 101  
GGTCAGCATCAGAATTTTTCAGAAACAAGCAACCAGCAAGTAAGTGATGATTTTTTTCCTT 2160  
G Q H Q N F S E T S N Q Q V S D D F F L 121  
AACATAAAGGACAAGCTGGAAGACACTATTGAAACATTAAAGGATTTGCAAGAGCAAATT 2220  
N I K D K L E D T I E T L K D L Q E Q I 141  
GGTCTCCTTGGCTTAAAGGAGTATTTTGATTCCACGAACTAGAACTAGAAGACCTTCA 2280  
G L L G L K E Y F D S T K L E T R R P S 161  
ACTTCTGTGGATGATGAATCTGATATCTTTGGTAGGCAGAGCGAAATAGAGGATTTGATT 2340  
T S V D D E S D I F G R Q S E I E D L I 181  
GACCGTCTATTGTCTGAAGGTGCAAGTGGAAGGAAAGCTGACAGTAGTTCCTATCGTTGGA 2400  
D R L L S E G A S G K K L T V V P I V G 201  
ATGGGCGGCCAGGGCAAGACAACACTTGCTAAAGCCGTATACAATGATGAGAGGGTGAAG 2460  
M G G Q G K T T L A K A V Y N D E R V K 221  
AATCATTTTGATTGAAAGCGTGGTATTGCGTTTCTGAAGGATTTGATGCTTTGAGAATA 2520  
N H F D L K A W Y C V S E G F D A L R I 241  
ACAAAAGAATTACTCCAAGAAATTGGCAAATTTGACTCGAAGGATGTCCACAACAATCTT 2580  
T K E L L Q E I G K F D S K D V H N N L 261

FIGURE 6a

7/10

AACCAGCTTCAAGTCAAATTGAAGGAAAGTTTGAAGGGAAAGAAGTTCCTTATTGTTTTG 2640  
N Q L Q V K L K E S L K G K K F L I V L 281  
GATGATGTGTGGAATGAAAATTACAACGAGTGGAATGACTTGAGAAATATTTTGCACAA 2700  
D D V W N E N Y N E W N D L R N I F A Q 301  
GGAGATATAGGAAGTAAGATCATTGTGACGACACGCAAAGACAGTGTTGCCTTGATGATG 2760  
G D I G S K I I V T T R K D S V A L M M 321  
GGAAATGAGCAAATTCGCATGGGCAATTTGTCTACCGAAGCCTCTTGGTCTTTATTTCAA 2820  
G N E Q I R M G N L S T E A S W S L F Q 341  
AGACATGCATTTGAAAACATGGATCCTATGGGACATCCGGAAGTGAAGAGGTGCGGAAGA 2880  
R H A F E N M D P M G H P E L E E V G R 361  
CAAATTGCAGCCAAGTGCAAAGGACTGCCCTTAGCTCTGAAGACGCTCGCTGGCATGTTA 2940  
Q I A A K C K G L P L A L K T L A G M L 381  
CGCTCCAAATCAGAGGTTGAAGAGTGGAACGTTATTTTGAGAAGTGAAATATGGGAGCTG 3000  
R S K S E V E E W K R I L R S E I W E L 401  
CCACACAATGACATATTACCAGCGTTGATGTTGAGCTACAATGATCTTCCCGCACATTTA 3060  
P H N D I L P A L M L S Y N D L P A H L 421  
AAGCGATGCTTTTCTTTTGTGCAATATTTCTTAAAGATTATCCATTTAGGAAAGAACAA 3120  
K R C F S F C A I F P K D Y P F R K E Q 441  
GTTATTCATCTATGGATTGCCAATGGTCTCGTACCAGTGAAAGATGAAATAAATCAAGAT 3180  
V I H L W I A N G L V P V K D E I N Q D 461  
TTAGGCAACCAATACTTTCTAGAGTTGAGATCAAGATCATTATTTGAAAAGGTCCCAAAT 3240  
L G N Q Y F L E L R S R S L F E K V P N 481  
CCTTCTAAAAGGAACATAGAGGAATTATTCCTTATGCATGACCTTGTCAATGATTTAGCC 3300  
P S K R N I E E L F L M H D L V N D L A 501  
CAACTTGCATCTTCAAACTTTGTATCAGGTTAGAAGAGAGCCAAGGATCTCATATGTTG 3360  
Q L A S S K L C I R L E E S Q G S H M L 521  
GAACAATGTCGGCACTTATCTTATTCAATAGGATTTAATGGTGAGTTTAAGAAATTGACA 3420  
E Q C R H L S Y S I G F N G E F K K L T 541  
CCCCTCTACAAATTGGAGCAGTTGAGGACATTGCTTCCGATACGTATTGAATTCAGATTG 3480  
P L Y K L E Q L R T L L P I R I E F R L 561  
CACAATCTAAGCAAGAGGGTGTGTCATAACATACTGCCTACACTAAGATCCTTGAGGGCC 3540  
H N L S K R V L H N I L P T L R S L R A 581  
CTATCATTCTCTCAATACAAGATTAAGGAGTTGCCAATGACTTGTTTACCAAATTAAG 3600  
L S F S Q Y K I K E L P N D L F T K L K 601  
CTCCTCAGATTTTTGGATATTTCTCGGACATGGATTACAAAGTTGCCGGATTCCATTTGT 3660  
L L R F L D I S R T W I T K L P D S I C 621  
GGATTATATAACTTGGAGACACTTCTCCTGTCATCTTGTGCTGATCTTGAGGAGCTACCG 3720  
G L Y N L E T L L L S S C A D L E E L P 641  
CTGCAGATGGAGAAGTTGATTAAGTTCGTCATCTTGACGTAAGCAACACTCGGCGCTTG 3780  
L Q M E K L I N L R H L D V S N T R R L 661  
AAGATGCCACTACATCTGAGCAGGTTGAAAAGCCTCCAAGTGTTGGTGGGACCCAAGTTT 3840  
K M P L H L S R L K S L Q V L V G P K F 681  
TTTGTAGATGGTTGGAGAATGGAAGATTTGGGTGAAGCACAAAACCTTACATGGATCTCTA 3900  
F V D G W R M E D L G E A Q N L H G S L 701  
TCAGTTGTGAAGTTGGAAAATGTGGTTGATAGAAGGGAAGCTGTGAAGGCAAAGATGAGG 3960  
S V V K L E N V V D R R E A V K A K M R 721  
GAGAAGAATCATGTTGAGCAATTATCATTGGAGTGGAGTGAAAGTAGTATTGCCGACAAT 4020  
E K N H V E Q L S L E W S E S S I A D N 741  
TCACAAACAGAAAGTGACATACTTGATGAGCTATGCCCACATAAAAACATCAAAAAAGTC 4080  
S Q T E S D I L D E L C P H K N I K K V 761  
GAAATCAGTGGATATAGAGGGACAACTTTCCCAATTGGGTAGCTGATCCTTTGTTTCTT 4140  
E I S G Y R G T N F P N W V A D P L F L 781  
AAGCTGGTGAATTTGTCTCTAAGAACTGCAAGGACTGTTACTCCTTGCCAGCACTAGGA 4200  
K L V N L S L R N C K D C Y S L P A L G 801  
CAACTCCCTTGTGTTGAAATTCCTTTCCGTAAAGGGATGCATGGAATAAGAGTGGTGACG 4260  
Q L P C L K F L S V K G M H G I R V V T 821

FIGURE 6b

8/10

GAAGAATTCTATGGCAGATTGTCCTCCAAAAAGCCTTTTAACTCTCTAGAGAAGCTTGAA 4320  
E E F Y G R L S S K K P F N S L E K L E 841  
TTTGAAGATATGACGGAGTGGAAGCAATGGCACGCACTAGGAATTGGAGAGTTCCCTACA 4380  
F E D M T E W K Q W H A L G I G E F P T 861  
CTTGAGAACCTTTCAATTAAAAATTGCCCTGAGCTCAGTTTGGAGATACCCATCCAATTT 4440  
L E N L S I K N C P E L S L E I P I Q F 881  
TCAAGTTTAAAAAGGTTAGAAGTTAGTGATTGTCCAGTTGTTTTTTGATGATGCCCAACTG 4500  
S S L K R L E V S D C P V V F D D A Q L 901  
TTTAGATCCCAACTTGAGGCAATGAAGCAGATTGAGGAAATAGATATATGTGATTGTAAC 4560  
F R S Q L E A M K Q I E E I D I C D C N 921  
TCTGTTACCTCCTTTTCCTTTTAGCATACTGCCAACTACCTTGAAGAGAATACAGATATCT 4620  
S V T S F P F S I L P T T L K R I Q I S 941  
CGTTGCCCAAAATTGAAATTGGAGGCGCCAGTTGGTGAGATGTTTGTGGAGTATTTGAGA 4680  
R C P K L K L E A P V G E M F V E Y L R 961  
GTGAATGATTGTGGTTGTGTAGATGATATATCACCTGAGTTTCTCCCAACAGCACGTCOA 4740  
V N D C G C V D D I S P E F L P T A R Q 981  
TTGAGTATTGAAAATTGCCAGAACGTTACTAGGTTTTTTGATTCTTACTGCCACTGAACT 4800  
L S I E N C Q N V T R F L I P T A T E T 1001  
CTCCGTATTTTGAATTGTGAGAATGTTGAAAACTATCGGTGGCATGTGGAGGAGCGGCC 4860  
L R I S N C E N V E K L S V A C G G A A 1021  
CAGATGACGTCACCTGAATATTTGGGGATGTAAGAAGCTCAAGTGTCTTCCAGAACTCCTT 4920  
Q M T S L N I W G C K K L K C L P E L L 1041  
CCATCTCTCAAGGAAGTGCCTGTCTGATTGTCCAGAAATAGAAGGAGAATTGCCCTTC 4980  
P S L K E L R L S D C P E I E G E L P F 1061  
AATTTAGAAATACTCCGTATCATATATTGCAAGAACTGGTGAATGGCCGAAAGGAGTGG 5040  
N L E I L R I I Y C K K L V N G R K E W 1081  
CATTTACAGAGACTCACAGAGTTATGGATCGATCATGATGGGAGTGACGAAGATATTGAA 5100  
H L Q R L T E L W I D H D G S D E D I E 1101  
CATTGGGAGTTGCCTTGTTCTATTCAGAGACTTACCATAAAGAATCTTAAACATTAAGC 5160  
H W E L P C S I Q R L T I K N L K T L S 1121  
AGCCAACATCTCAAAGCCTCACCTCTCTTCAATATCTATGTATTGAGGGTTATTTATCT 5220  
S Q H L K S L T S L Q Y L C I E G Y L S 1141  
CAGATTCAAGTCAAGGCCAGCTTTCTCCTTTTCTCACCTCACTTCGCTTCAAACCTCTA 5280  
Q I Q S Q G Q L S S F S H L T S L Q T L 1161  
CAAATCTGGAATTTCTTAAATCTCCAATCACTTGCTGAATCAGCACTGCCCTCCTCCCTC 5340  
Q I W N F L N L Q S L A E S A L P S S L 1181  
TCTCACCTGGAGATAGATGATTGCCCTAATCTCCAATCACTCTTGAATCAGCACTGCCC 5400  
S H L E I D D C P N L Q S L F E S A L P 1201  
TCCTCCCTCTCTCAGCTGTTTCATCCAGGATTGCCCTAATCTCCAATCCCTTCCATTTAAA 5460  
S S L S Q L F I Q D C P N L Q S L P F K 1221  
GGGATGCCCTCTTCCCTCTCTAACTATCTATTTTCAATTGCCCATTTGCTCACACCACTA 5520  
G M P S S L S K L S I F N C P L L T P L 1241  
CTAGAATTTGACAAGGGGGAATACTGGCCACAAATTGCTCATATTCCCATCATAAATATC 5580  
L E F D K G E Y W P Q I A H I P I I N I 1261  
GATTGGAAATATATTTAAACAATTAACAAATGGCTCTCCAAGTATGTAAGCTATTTCGT 5640  
D W K Y I --- 1266  
TACCCTTAGAAGCTTTTTTATGATTCTATGTTTCTCATTGCTTATTGGTTTATGCTCTTAC 5700  
CGTGTTTTTAATTCACGTCTCAATTGCCACCATGTTTAAATCGAAAGTTTTTAGTTCTTGTA 5760  
ATCATCAACCATCCTATGTCACTAGAAATTTTGATAGGTAAGAGGTAAGACAAAAAGC 5820  
TAAACATCTTTTTTCTTTTCGTATAGCGACCAAACTACATTTTGTAGGTAAGGGCTA 5880  
TAGATATACATTTGCAGGGTGTTAAACCAAGGAGTAAGAAAATCACTGTCTTCAGATATC 5940  
TTCTCTTGCATATACTTTTGCAATTTTAAAGCTACATTTTGAAGTCAATGTGTTGTTGCTAA 6000  
CTTAAACATGTTTTGTGCTTAATCAGATGTGGATTTTGAAGAGCGAGTACGACAAGTCTG 6060  
GTACATTAATTGTCCGTAGAAGTGTTTCTAAGGTGCTGCTGCTATTTTTTACATCTGTTCC 6120  
CGAGTTTTGTTTTTTTTTTTAAATCTTTCCACTAAAGCTATTATGTCGTCCACAGTGAATT 6180  
TTCAGGTCTGTTGTTATAGGCAAGTCTTTGAGATGCGACTATCAAAGAAGGGCGATTACA 6240

FIGURE 6c

9/10

ATCAGTGTACCGCTGAAACTATTTTCATGTTTCCAGTGCAAGCCTCTTTTGTAAGTTGACA 6300  
AACTCGATTAGTTAATATGTTTGGGACTCAACTAGTGGTTAGAGTACTCATTTTGTAAGA 6360  
CTTGTGTACAGAAAATCAAATTAGAATTATAACTCGTGATGGTTGAATAAACTCTAAGAA 6420  
GTA CTGATATATTTTTTAGTGGATATGTTGTTTGCTCATTCCGGTGTTTGATATCCACATT 6480  
GGAGTCCA ACTAAATTCGAATTTGCACAATCGAAGGAGCGGTGCTCCTGGCATGATTTTT 6540  
TTCCCATTCTACGACTAGTGCTCCTAAATTCTAATTAAGCATAGAAAAATCTCAACTATC 6600  
TCACCCA ACTCATATCAGGATAGAGTATTCCCTGAGGAGGATTCCTTCAGTTACAAA-3' 6658

FIGURE 6d

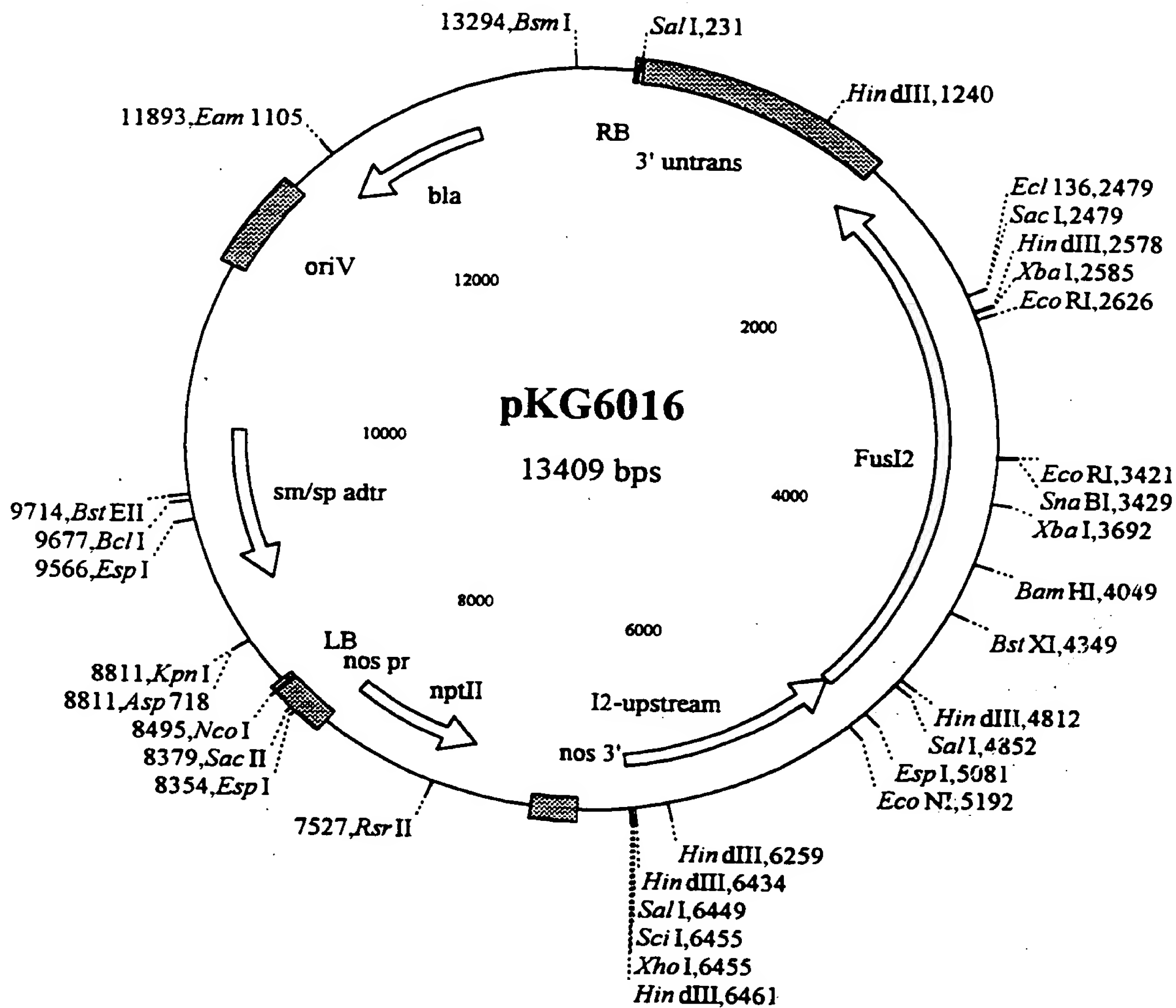


FIGURE 7